25X1C SECRET SECURITY INFORMATION REPORT NO. DATE DISTR. 30 Sept 53 Czechoslovakia COUNTRY NO. OF PAGES Instrument Let-down Procedure for **SUBJECT** Czechoslovak Aircraft NO. OF ENCLS. 25X1A PLACE (LISTED BELOW) **ACQUIRED** SUPPLEMENT TO DATE REPORT NO. ACQUIRED BY SOURCE 25X1C DATE OF INFORMATION THIS IS UNEVALUATED INFORMATION

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SOURCE



- The following basic rules governed instrument flying in Czechoslovakia for military and civilian aircraft:
 - All flights had to be at a minimum of 600 m. above the elevation of the highest obstruction en route.
 - When flying in the 0-180° quadrant, the basic flight altitude for all aircraft was to be 600 m. This altitude was increased in increments of 600 m., i.e., flight altitudes could be 1,200 m., 1,800 m., 2,400 m., etc.
 - The basic altitude for all flights in the 180° 360° quadrant was 900 m. This altitude was increased in increments of 600 m., i.e., flight altitudes could be 900 m., 1,500 m., 2,100 m., etc.
- 2. When approaching an airfield under instrument conditions, the radio operator of an aircraft would transmit the ETA to the airfield's goniometer station by wireless asking for the true bearing or "steer". Approximately 5 - 10 min. prior to the expiration of the ETA, the goniometer station would tell the radio operator to start transmitting by key, and after determining the aircraft position, the goniometer station would give the true heading to the airfield, or send a Q D M (any approaching directional heading from 0 to 360) which the plane must fly in approaching the airfield. The radio operator also received the landing instructions and permission for the aircraft to descend to the entry level of 1,000 m.

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3. When the aircraft arrived over the goniometer station, the station transmitted the letters "Q F G" by key, which signaled the pilot that he was over the goniometer station. The pilot then departed the station on a QDR (any departing directional heading from 0 - 360°), and flew this heading for three minutes while descending to 800 m. above the airfield's elevation. The pilot then altered the aircraft's course 45° to the right for 45 sec. and made a standard one-needle width level turn to the left to a Q D M of 180°. Upon completing this turn, he would begin his descent to an absolute altitude of 250 m. at the rate of 500 ft./min. If the plane were still in clouds at 250 m. absolute altitude above the airfield, the aircraft was required to ascend again on a 180 heading and to contact the airfield's control room for further instruction. This usually meant going to an alternate airfield.

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in March 1953, a change was under way in CSA instrument let-down procedures; the goniometer received transmissions by radio from the aircraft as before, but the goniometer station then contacted and instructed the pilot by voice transmission. The pilot however, could not reply by voice; the radio operator This system worked efficiently; would reply by key.

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5. Following is a direct translation of the instrument let-down procedure given in the Czechoslovak Air Force Pilot's Handbook:

"Upon being cleared into the airfield area by the airfield dispatcher service (Letistna Dispecerska Sluzba - LDS), obtaining clearance to descend to 1,000 m., and receiving landing instructions (information concerning runway in use, wind direction and velocity, base of clouds, visibility), request a true bearing and QDM from Gonio /goniometer station/. When you pass over the Gonio, fly on a QDR of 360 for three minutes, descending at the rate of one meter per second to an altitude of 800 m. above the airfield. Air speed during descent should be 210 km./hr. in a DC-3 or LI-2. -Make a procedure turn to the right, maintaining an altitude of 800 m. When you have completed the procedure, turn to the right, maintain air speed suitable for extending landing gear (130 - 160 mph), extend gear, continue descent at indicated air speed of 210 km. for DC-3 or LI-2 and at three meters per second on a QDM of 180 and proceed to Gonio OKA (call sign of gonio station), adjusting rate of descent, if necessary, so that you arrive over the Gonio at an altitude of 250 m. During let-down, you must correct for wind drift. Upon contacting the ground, get into the traffic pattern, (the pattern was always to the left). If you do not see the ground upon reaching an absolute altitude of 250 m., climb on course (QDR - 180°) to the entry level altitude of 1,000 m. and contact LDS for further instructions."

"Weather landing minimums: 10/10 cloud coverage. Daylight conditions: base of clouds must be 250 m. or higher, and visibility over 2,000 m. or landing is prohibited. Take-off minimums: base of clouds must be over 150 m. / From the ground / and visibility over 1,000 m. / ahead / and weather conditions must be such as to permit landing at either the airfield at Brno or at Olomouc. both Brno and Olomouc are closed, all take-offs are prohibited. Instrument let-down at night prohibited, except in emergency.

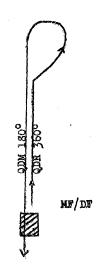
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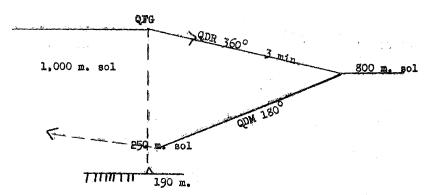
A. Memory Sketch of Czechoslovak Air Instrument Let-down Procedure

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ENCLOSURE A: Memory Sketch of Czechoslovak Air Instrument Let-down Procedure





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